

Remarks/Arguments:

Claims 19-22, presented hereby, are pending.

Claims 1-18 are canceled, hereby, without prejudice or disclaimer.

Present claims 19-22 contain the subject matter of claims 36-39, respectively, of record in the parent application, hereby amended to specify that the cryopreserved blood sample "contains a cryopreservative," as disclosed in the present specification (paragraph bridging pages 5 and 6).

In the parent application claims 36-39 had been rejected under 35 USC 112, second paragraph, for allegedly being indefinite. While the rejection was incorrect, the instant claims are worded differently than the rejected claims in order to further prosecution.

Both the rejected claims and the present claims are *Jepson-type* claims, i.e., "a Jepson-type claim . . . [is] a claim of the type discussed in 37 CFR 1.75(e)." MPEP 2129. According to Rule 75(e):

(e) Where the nature of the case admits, as in the case of an improvement, any independent claim should contain in the following order:

- (1) A preamble comprising a general description of all the elements or steps of the claimed combination which are conventional or known,
- (2) A phrase such as "wherein the improvement comprises," and
- (3) Those elements, steps, and/or relationships which constitute that portion of the claimed combination which the applicant considers as the new or improved portion.

As the present claims are proper "Jepson-type" claims, they are not properly rejected as being indefinite under §112, ¶2.

In the parent application method claims 36-39 were rejected under 35 USC 103(a) for alleged obviousness based on the combined teachings of EP 741294 (Wendel) and US 5,004,681 (Boyse). The rejection was incorrect and, so, is inapplicable against the present claims.

Wendel is discussed in the description of the present application. The reference discloses a method for investigating substances or materials that come into contact with human tissue, body fluids, and cells for pyrogenic effects of various causation. The disclosed method comprises bringing a substance or material into contact with human or animal whole blood, under conditions making the production of endogenous pyrogens possible, incubating the mixture, and investigating the incubated whole blood for the production of cytokines.

Wendel's test method, an improvement over previous test methods (such as the Limulus-Test and the rabbit test) for detecting the pyrogenic effects of substances and materials, requires the use of whole blood, i.e., blood samples that contain all components present in the blood of healthy individuals. This is important because the presence of all components found in whole blood is necessary to make sure that any potential pyrogenic effect will be detected. In other words, should one or more whole-blood components be missing from the blood sample used as the detection medium, it is possible that a pyrogenic effect (i.e., one caused by contact with the missing component) will not be detected and, so, lead to false negative results.

Therefore, both in the method of Wendel and in the presently claimed method, it is of utmost importance that no component of whole blood is missing from the blood sample used for the determination of the reaction to test materials. Only in this manner can either method be correctly

carried out. Over Wendel, however, applicants have found that, surprisingly, the presently claimed invention is correctly carried out using cryopreserved whole blood, after thawing, as the blood sample tested. In the light of this claim feature (limitation), the subject-matter presently claimed would not have been considered unpatentable (obvious) over Wendel in view of Boyse because Boyse teaches away from the use of cryopreserved blood, as presently claimed.

According to Boyse, the cryopreservation of human neonatal or fetal blood, and the human neonatal or fetal haematopoietic stem cells derived from the blood, leads to a substantial loss of viable cells. This teaching can be taken from Table V of Boyse (columns 50 and 51). In this Table V, which obviously relates to the same subject-matter, namely the “Recovery of Cord Blood Haematopoietic Progenitor Cells After Freeze-Thawing”, it can be taken that the average percent survival after freeze-thawing of said cells is substantially below 100%. Specifically reference is made in the first sentence after this table (Boyse column 51) that:

As shown in Table V, the average % survival after freeze-thawing was 36.1, 65.6, 65.4, 45.8, 44.6, and 30.5, respectively, for nucleated cells.

Therefore, the skilled person reading Boyse is taught that the cryopreservation and the thawing of the blood conserved in this way can result in a loss of the material in the range of 69.5 to 34.4%. Thus, the skilled person would not have expected with a reasonable expectation of success, that using a sample of whole blood that has been cryopreserved and thawed, from which a number of components may be missing are taught in Boyse to be a suitable to test a material or

object for human applications by detecting and/or measuring an immunofunctional, toxic or modulatory blood reaction against said material or object.

Thus, the skilled person will by no means consider to use cryopreserved whole blood which has been thawed as the test medium in the method disclosed in Wendel, because the skilled person would not expect that a test, making use of a blood sample, could provide the correct results because of the expected degradation of substantial parts of the components contained in the whole blood after cryopreserving and thawing.

Thus, the subject-matter presently claimed cannot be considered to be *prima facie* obvious over this prior art.

Moreover, the skilled person would, when considering Boyse as the method of determination of the reaction of blood or the detection of a blood reaction as taught by Wendel, by using the specific cryopreserved biological components disclosed in these documents, because these documents are restricted to very specific kinds of cells, namely fetal and neonatal haemopoietic stem and progenitor cells.

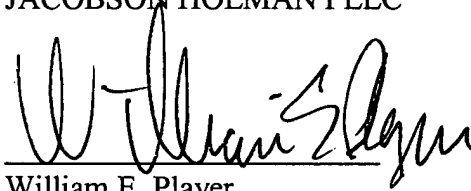
Thus, on the basis of the disclosure of these documents the skilled person would have to make an invention to arrive at the subject-matter claimed.

Favorable action is requested.

Respectfully submitted,

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By

A handwritten signature in black ink, appearing to read "William E. Player", written over a horizontal line.

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